APPRENTICESHIP

Achieving Excellence through Partnership

December 2002

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Achieving Excellence through Partnership

Report of the Co-Chairs of the
Apprenticeship Public Consultations to the
Nova Scotia Provincial Apprenticeship Board

Message from the Co-Chairs

We received a number of thoughtful submissions and participated in many engaging discussions with the individuals who attended the *Apprenticeship and Trades Qualifications Act* Review public sessions. People appreciated that we had the opportunity to meet them in their home communities. The range of issues discussed was very broad. People were interested in the apprenticeship system which, through discussion, was defined to include trade career promotion activities, youth apprenticeship and work experience programs, pre-employment programs as offered by the Nova Scotia Community College (NSCC) and University College of Cape Breton (UCCB), and apprenticeship.

When we began this process, we were strong believers in apprenticeship. We recognized the important role apprenticeship could play in providing the skills required for our economic prosperity. We are still believers. Our overall impression, however, is different. As far as the system has come in the last five years—and we believe it has made substantial gains—it is not where it needs to be. The new provincial Skills Framework offers some promise of recognition and expansion of the program. Support from the federal government will be required.

We were advised through the public meetings that we needed to be bold in our recommendations. We needed to create a new vision and place for apprenticeship. Legislative change is required to implement our recommendations, but this will not be enough. We need to dramatically expand apprenticeship, creating a continuum of interaction between student and employer, educators and apprenticeship, employer and employee, journeyperson and apprentice.

No other training method harnesses the resources of the workplace while providing nationally recognized skills without the creation of mountains of student debt. The apprenticeship partnerships are the cement that binds, that has allowed apprenticeship to survive for centuries with many champions. Intervention is required before the cracks in our system weaken its foundation.

We are pleased to present our recommendation report to the Provincial Apprenticeship Board for consideration.

Apprenticeship is an opportunity. It is also an economic imperative for Nova Scotia.

Carol MacCulloch, President
Construction Association
of Nova Scotia

James Henley, President
Mainland Building and
Construction Trades Council

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Executive Summary

The review of the *Apprenticeship and Trades Qualifications Act* has provided a forum to build consensus and a framework for legislative and regulatory change. The review has provided an opportunity for renewal of the apprenticeship system.

As Nova Scotians, we are faced with compelling challenges, the opportunities of new economic growth and the realities of demographic shifts within the labour force. The skilled trades are just that—skills that require years of training, mentoring, experience, and continuous refining. These skills are essential to our daily lives. We must ensure we replace those individuals who will be leaving the labour force while responding to new economic opportunities and demands for new skills.

Apprenticeship is a partnership; it can exist only within this context—journeyperson to apprentice; employer to employee. Government and training institutions provide structure and support and ensure that consistent standards exist and are met. Apprenticeship is hands-on, real world. It is work and it is learning. Apprenticeship leverages government and employer resources while it trains and as such provides not only the most effective methodology for transfer and development of skills, but also the best value for government's training investment.

We are pleased to present a new vision for apprenticeship in Nova Scotia. Key recommendations include the following:

- The Government of Nova Scotia should adopt a multi-year strategy to expand the apprenticeship system based on the need to qualify 1,400 tradespersons per year by 2007. This goal reflects the needs of existing and anticipated new employers as well as the value and potential of career opportunities for individuals in the skilled trades.
- The Apprenticeship Program must be redefined as the comprehensive system it is. The program must be expanded to include coordination and budget control over the delivery of the youth apprenticeship and pre-employment programs that ultimately lead into formal apprenticeship. The Apprenticeship Training Division, with direction from the Provincial Apprenticeship Board, should be assigned the authority to plan and manage these programs through legislation. The Nova Scotia Community College (NSCC)/University College of Cape Breton (UCCB) systems should retain a central role in supporting program delivery.

- The composition and mandate of the Provincial Apprenticeship Board should be reviewed in light of the expanded role and responsibility of the Apprenticeship Training Division. The Provincial Apprenticeship Board should be given governance responsibilities with respect to the implementation of the strategic plan.
- Multi-year funding targets for the apprenticeship system should be established by multiplying the anticipated number of apprentices by an average cost per active apprentice of $2,800. These funding targets should be reflected in the federal-provincial labour market agreement as well as the provincial budget process.
- The Treasury and Policy Board should establish clear lines of authority to address the policy development process for "occupational certifications and regulations." A program to streamline the current regulatory regime should be initiated in full consultation with industry stakeholders and affected departments.

Introduction

Before making any changes to the *Apprenticeship and Trades Qualifications Act*, the Minister of Education wanted to hear from stakeholders. A public consultation process was initiated by the Provincial Apprenticeship Board to obtain this input. Carol MacCulloch of the Construction Association of Nova Scotia and Jim Henley of the Mainland Building and Construction Trades Council were asked to chair this process.

A working group of 19 industry representatives contributed to the development of the consultation discussion paper and the nine topics presented in it. These were not the only issues and the discussion paper did not purport to explore every facet of each identified issue. The working group met throughout the review process providing feedback and direction to the process as well as input into the reports being prepared.

Apprenticeship in Nova Scotia: A Discussion Paper was released on March 13, 2002, by the Minister of Education. The discussion paper was distributed to more than 2500 industry stakeholders. Copies of this discussion paper, the *Apprenticeship and Trades Qualifications Act*, and other supporting research documents were made available through the Provincial Apprenticeship Board office and its Web site at <http://apprenticeboard.EDnet.ns.ca>.

Public sessions were held in eight communities across the province with each session hosted by the NSCC.

Location	Date
Sydney	April 9, 2002
Port Hawkesbury	April 10, 2002
Pictou	April 11, 2002
Halifax	April 16, 2002
Springhill	April 18, 2002
Middleton	April 23, 2002
Yarmouth	April 24, 2002
Bridgewater	April 25, 2002

The format for the sessions provided attendees with details on the purpose of the public process, means by which feedback could be received, and the anticipated process following the end of the public sessions. Each session was chaired or facilitated by Carol MacCulloch and James Henley. Department of Education, UCCB, and NSCC staff assisted during the consultation meeting by answering questions.

Apart from the pre-registration presentations, the topic of discussion was open to the wishes of the attendees. As a group, stakeholders responded readily and constructively when invited to give their views. Commentaries on the discussion paper were thoughtful and often detailed. One hundred individuals attended the public sessions and written responses were received from 37 individuals, businesses, groups, and associations.

We wish to acknowledge and thank those individuals who helped to organize the public meetings and prepare the reports and background research: Joe Rudderham and Joe Black of the Department of Education, Kevin Gerrior and Tanya Hendsbee of the Nova Scotia Community College.

Consultation Themes

One of many messages received through the consultation process was that the partners in the apprenticeship system believe strongly in the value of this form of training and welcome the opportunity to help improve it.

A second message received from individuals from different trade backgrounds was that the system must be more responsive to such things as technological change, fluctuating labour-market requirements, evolving training needs, and competition from practitioners in trades and occupations outside the apprenticeship system.

The present apprenticeship system is not perceived to adapt well to such factors. Many responses, therefore, called for a system that will allow needed changes to be made quickly and easily to ensure that the system remains up to date.

A number of themes, topics, and issues emerged from the eight public sessions. A more detailed account of the comments received is contained in the consultation summary in the appendices to this report.

The concerns raised included pre-employment progams and apprenticeship, availability of training, suitability of training, compulsory certification, industry involvement, funding apprenticeship, regulations, and youth apprenticeship.

Pre-Employment Programs and Apprenticeship

Individuals appeared not to be able to distinguish between the pre-employment programs at the NSCC and UCCB and the apprenticeship program. For some the two were one. The need for continuity of the education experience and opportunity for individuals considering a trade and continuity of administrative processes for both individuals and employers was noted and discussed. In discussing the two programs, several issues and questions arose: Are pre-employment programs intended to be a prerequisite for entry into apprenticeship? Should the department move to an accreditation model that provides more alternatives in terms of pre-employment programs? Can the Apprenticeship Training Division afford to be arms-length from decisions regarding program availability? Should the pre-employment programs be renamed to form a continuum with apprenticeship including some form of registration with the division?

Availability of Training

We heard from both employers and apprentices regarding concerns over the availability of training. The training system has become so strained that individuals could not proceed at a predetermined pace through their apprenticeship due to limited training options. It was noted there are issues related to attendance and no-shows that must be addressed. Employers and apprentices, particularly in non-compulsory trades, told us that if they cannot progress at a reasonable pace through the system they would and have begun to turn away. Employers have advertised elsewhere in the country for journeypersons where they would in the past have taken on apprentices from the local community.

Suitability of Training

Understanding that apprenticeship training courses and blocks are theory based, many individuals discussed the need for practical training as part of apprenticeship courses and blocks. A number of arguments in support were presented. These included the need to round out the apprentice's experience, augment limitations in individual employers operations, and providing exposure to equipment, procedures, or activities that may not be readily available. This position was reinforced in regions of the province where employers appear to be more likely to hire individuals as apprentices who have not completed a pre-employment program.

Developing programming that is flexible and responsive was noted as key to the future of apprenticeship. The opportunity of infrastructure investments by partnering with employers or others to host training and provide access to new equipment and processes are means to respond to training needs. In addition, placing pre-apprentices in a real work environment early in their school term was noted to be critical to success.

Concern was also expressed about the disconnection between the "clean" environment of the NSCC campuses and the real world of work for many tradespeople.

Compulsory Certification

The need to have compulsory certification, where public and personal safety are strong considerations, was raised for specific trades. Several participants recommended compulsory certification for all 53 apprenticable trades. It was argued that compulsory certified tradespersons have better opportunities for work inside and outside Nova Scotia, work longer, and are more employable than persons in non-certified occupations. A lack of consistency was noted when comparing the eight existing compulsory certified trades with many of the remaining trades. In the discussions, most felt that a consistent approach was necessary and that the consistency should be clear across regulatory departments and agencies.

Industry Involvement

The need for industry to become actively involved in matters concerning curriculum development, promotion, and enforcement was noted. "Industry" opinions are much sought after and relied upon by the Department of Education and NSCC/UCCB officials. Industry, even when willing, can be a difficult beast to corral. Many of those who attended the meetings have participated on a trade or program advisory committees. Many of these industry representatives had concerns about the effectiveness of their participation and noted that more comprehensive and dynamic processes are needed.

Funding Apprenticeship

In most of the sessions, one or more participants noted the significant difference between Nova Scotia's apprenticeship budget and those provinces with similar apprenticeship obligations. It was felt that Nova Scotia's system is underfunded and apprenticeship staff are overburdened with excess caseloads.

Regulations

The Gas Fitter trade was a significant topic of discussion at six of the eight public sessions. Many of the participants indicated that several of the trades perform many of the same or similar tasks as a gas fitter. It was felt that the skills and knowledge of these tradespeople were ignored by those involved in the drafting of the Fuel Safety Regulations. Impending restrictions were felt to infringe on and impede the ability and profitability of Nova Scotia businesses.

Youth Apprenticeship

It was evident in discussions of youth and apprenticeship that Nova Scotia must do more to educate young Nova Scotians on skilled trade opportunities and careers including providing hands-on work experience in the trades as part of the high school program.

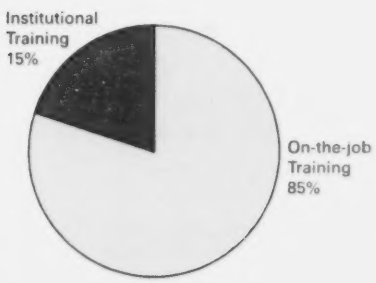
Findings and Recommendations

The Value of Apprenticeship

The review of the *Apprenticeship and Trades Qualifications Act* has provided a forum to build consensus and a framework for legislative and regulatory change as well as for renewal of the apprenticeship system.

As Nova Scotians we are faced with compelling challenges, the opportunities of new economic growth and the realities of demographic shifts within the labour force. The skilled trades are just that—skills that require years of training, mentoring, experience, and continuous refining. We are dependent on people with these skills both at home and at work. It is necessary to replace those who will be leaving the labour force as well as to respond to the new demands created by economic opportunities and changing technologies.

Apprenticeship Training Model

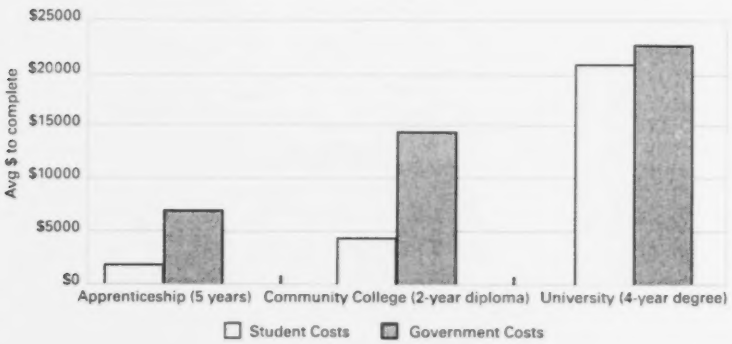


Apprenticeship is a partnership; it can exist only within this context—journeyperson to apprentice; employer to employee. Government and training institutions provide structure and support, and ensure that consistent standards exist and are being met. Apprenticeship is hands-on, real world. It is work and it is learning. Apprenticeship leverages government and employer resources while it trains and as such provides not only the most effective methodology for transfer and development of skills but the best value for the government's training investment.

A comparison of the direct education costs to the individual and to government is presented below. Apprenticeship, with its reliance on on-the-job training, is extremely cost effective. As well as low direct costs to the individuals, apprentices must be employed and are earning wages throughout the training process.

Recent studies have demonstrated the value of journeyperson's status including the interprovincial recognition associated with the Red Seal Program and the benefits of mobility across Canada. Certified skills translate into high wages and greater employment opportunities.

Value Comparison



The apprenticeship system provides skilled tradespeople vital to success of the construction, manufacturing, tourism, and automotive industries. The apprenticeship system not only trains individuals, it certifies skills and, in a number of occupations, provides for compulsory certification to protect public safety. We heard repeatedly from employers their concerns regarding the availability of skilled personnel and their need for succession planning.

In response to growing concerns, the Premier has released a working paper *Skills Nova Scotia: Strong Workforce, Bright Future.* The paper articulates the Skills Nova Scotia Framework through which the goal is "to achieve a world-class workforce ready to meet the challenges of today and the promises of tomorrow." The framework recognizes the need to work to enhance and improve the apprenticeship system in Nova Scotia. These are important first steps in the renewal of the system. Broad-based change will be required for this objective to be achieved.

The Department of Education, in its corporate performance measure under learning success, uses a post-secondary certificate, diploma, or degree as its measure. The Office of Economic Development's Business Climate Index, under the human resources category, benchmarks Nova Scotia's performance in post-secondary education attainment as a university degree, high school attainment, literacy, and skilled immigrants. We believe the lack of recognition of journeyperson's certification reflects the bias we are attempting to dispel and sells Nova Scotia short. Journeypersons have achieved post-secondary education and are vital to our economic future. Their certifications and skills should be included in our definition of learning success.

The recommendations that follow are a direct response to these concerns.

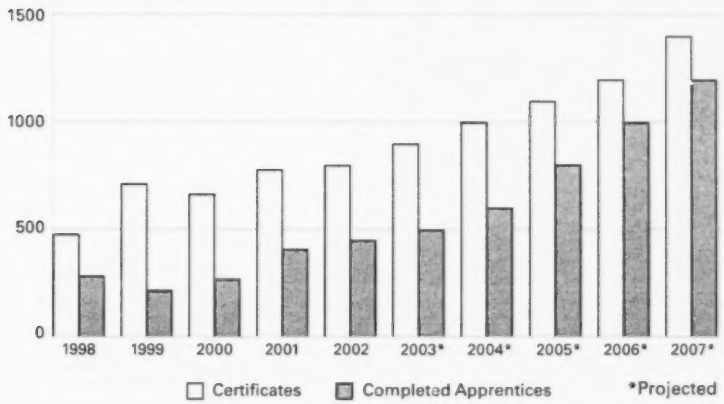
Skilled Trades and Economic Growth

Current economic conditions indicate that Nova Scotia is in a period of "relatively" strong economic growth and industrial development. This growth, along with the aging of the skilled work force, has created a significant challenge for Nova Scotia's apprenticeship training system. The system is under pressure to meet this growing demand.

- A 1999 study prepared by the Atlantic Provinces Economic Council (APEC) reported that "future demand for construction work and workers is entering a period of sustained growth in Nova Scotia and Atlantic Canada."
- In a June 2000 presentation to the Provincial Apprenticeship Board, Graham Conrad, Executive Director of the Nova Scotia Automotive Human Resource Sector Council, pointed out that "there is now a shortage of skilled technicians within the labour force right across Canada. Within the next 5–7 years, an estimated 14 percent of the existing labour force is expected to be leaving the trade."
- In a 1999–2001 Management Issues Survey report by the Alliance of Manufacturers and Exporters of Canada, 23 percent of the companies surveyed reported that technical skills are in need of improvement; 39 percent of the companies reported a shortage in machining personnel; 32 percent reported a shortage in tool and die personnel; 28 percent reported a shortage in other mechanical skills personnel; and 22 percent reported a shortage of welders.

Over the last three years the number of journeypersons receiving certificates has increased, as has the enrolment in apprenticeship programs. We believe that this upswing is indicative of the labour market concerns we heard around the province. It is anticipated, however, that a more aggressive solution will be required if the province is to sustain and grow its capacity in the skilled trades. We anticipate that the number of certificates of qualification being issued each year will need to triple by 2007. The largest component of this expansion will have to come from increasing the number of completing apprentices as the number of improvers or trade qualifiers is expected to decline proportionally as the workforce ages.

Certificates of Qualification Issued



Recommendation 1

The Government of Nova Scotia should adopt a multi-year strategy to expand the apprenticeship system based on the need to qualify 1,400 tradespersons per year by 2007. This goal reflects the needs of existing and anticipated new employers as well as the value and potential of career opportunities for individuals in the skilled trades.

Recommendation 2

The Government of Nova Scotia, through the Skills Framework and in its negotiations with the federal government, should plan to accommodate substantial growth within the apprenticeship system.

Recommendation 3

The Provincial Apprenticeship Board should establish a five-year strategy and specific performance measures to achieve these apprenticeship targets and report annually to the Minister and to stakeholders.

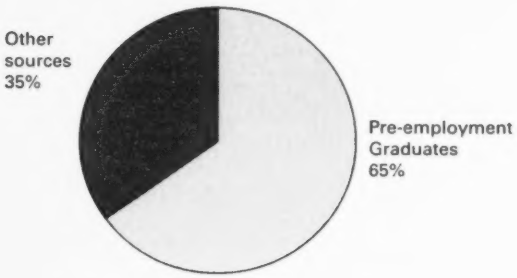
The Apprenticeship Continuum

The existing apprenticeship system relies on partnerships and integration of a number of different elements to create a skilled journeyperson. We heard from employers and apprentices that they found this system confusing and sometimes frustrating. Frequently they did not understand the organizational and institutional issues that confronted them, sometimes impeding their progress. The nature of apprenticeship—defining the occupational requirements, defining training outcomes, determining training seats, course requirements, keeping pace with technology, designating or certifying occupations, deciding on text books—requires constant interaction and goodwill. Despite enormous amounts of goodwill and energy, the current systems are not working.

We heard frequently of the interdependence between the pre-employment programs at the NSCC/UCCB and apprenticeship training programs. We heard of the value these programs bring to the apprenticeship system, and the important role they could play in improving the success of apprentices moving through the system. We also heard of the need to provide greater hands-on experience within apprenticeship training courses while providing greater field experience within the NSCC programs. Consultation mechanisms are duplicated between the systems. Pre-employment program students are often confused as to their status under the apprenticeship system. Courses exist for some trades, not others. Programs are not consistently available around the province. The support and need for a youth apprenticeship program at the high school level would add a third level of organization and complexity.

Employers and potential apprentices deserve a single line of communication, a consistent interpretation of outcomes and streamlined and integrated learning experiences.

Sources of New Apprenticeship Registrations 2000–01



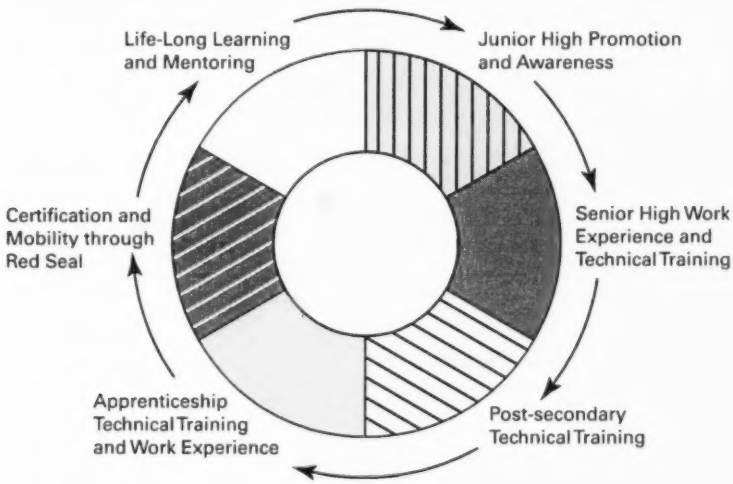
The interdependence between pre-employment programs and apprenticeship became a reoccurring theme in our discussions.

The NSCC conducts a graduate survey each year. The Year 2000 survey reports that the School of Trades and Technology issued 856 certificates the previous year. The survey does not specifically report on the number of graduates entering apprenticeships, which would be useful, but does indicate that approximately 25 percent were continuing their education. During 2000–01, the Apprenticeship Training Division registered 605 NSCC graduates as new apprentices.

Participants in youth apprenticeship programs at the high school level as well as pre-employment programs that provide work experience should be formally recognized and registered as part of a pre-apprenticeship program. This would provide many benefits, allowing individuals to achieve advanced standing under a formal apprenticeship while providing valuable potential enrolment information for planning purposes.

The apprenticeship continuum, as we have defined, begins with career education programs including at the junior high level and continues through to formal journeyperson certification and a mentoring role for those beginning the process. We recognize there is currently a substantial commitment on behalf of journeypersons and employers to additional training and certification and to lifelong learning. This is important, but we believe the challenges in the early stages of the continuum are so substantial that they must take precedence.

Apprenticeship Continuum

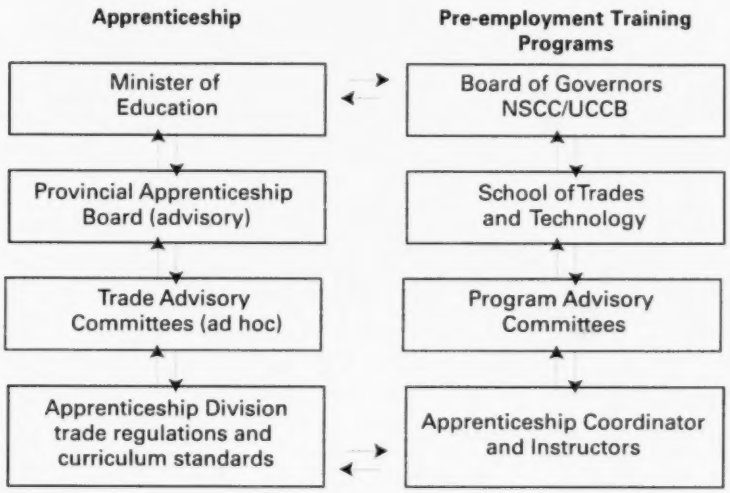

Life-Long Learning and Mentoring
Junior High Promotion and Awareness
Senior High Work Experience and Technical Training
Post-secondary Technical Training
Apprenticeship Technical Training and Work Experience
Certification and Mobility through Red Seal

Recommendation 4

The Apprenticeship Program must be redefined as the comprehensive system it is. The program must be expanded to include coordination and budget control over the delivery of the youth apprenticeship and pre-employment programs that ultimately lead into formal apprenticeship. The Apprenticeship Training Division, with direction from the Provincial Apprenticeship Board, should be assigned the authority to plan and manage these programs through legislation. The NSCC/UCCB systems should retain a central role in supporting program delivery.

The Provincial Apprenticeship Board can be an extremely valuable asset to the system. It is the interface between industry and government. As the apprenticeship system is redefined, the mandate of the Provincial Apprenticeship Board should be realigned. Representation from stakeholders with experience in pre-employment and eventually youth apprenticeship programs should be recruited. It is essential that board members maintain and strengthen collectively and individually the flow of information to and from stakeholders. Stakeholders must have confidence in the board's decisions, particularly during the strategic planning process. The board must also be seen to be representative of stakeholders.

Current Governance Model



Recommendation 5

The composition and mandate of the Provincial Apprenticeship Board should be reviewed in light of the expanded role and responsibility of the Apprenticeship Training Division. The Provincial Apprenticeship Board should be given governance responsibilities with respect to the implementation of the strategic plan.

Recommendation 6

The Minister of Education should make appointments to the Provincial Apprenticeship Board from nominees presented by the stakeholders to the system. The structure of the board should continue to balance employer and employee representation while including apprentice, youth, and educational institutional representatives. The board should provide recommendations to the Minister as to the industry sector balance as well as geographic representation needs of the board when new appointments are being contemplated.

Duties and Authority under the Existing Apprenticeship Act

	Governor in Council & Minister Responsible ...	**Provincial Apprenticeship Board ...**	**Director of Apprenticeship ...**
Apprenticeship Board	Appoint members and chairperson		
Designation of a Trade	Designate	Recommend	Implement
Apprenticeship Agreements	Approve		Certifies or cancels; registers apprentices and improvers
Determine nature of technical training to be made available		Decides in consultation with the Director	Decides in consultation with the Board, consults with national (red seal) and regional bodies, supervises training including inspection and approval of facilities
Disputes/Appeals		Makes decisions	
Reports	Reports annually to legislature	Reports annually to Minister	
Other duties	Enter into agreements with third parties	Promotes apprenticeship	

Continuity of learning experience and program delivery must be a priority. Every opportunity to reduce confusion, overlap, and inefficiency, and streamline program delivery, must be identified and taken advantage of. If the program is to grow, we must maximize the use of available resources, both institutional and volunteer. The existing silo structures must be realigned and simplified.

One of the strengths of the apprenticeship system is the potential for dynamic exchange between educators and administrators and the private sector. In recent years the system of trade advisory committees was changed. The NSCC created its program advisory committees. We heard from apprentices of the damage and difficulty that can be created when these systems provide conflicting advice, creating training program content that does not meet apprenticeship outcomes. The individuals within the various systems do attempt to share information mitigating potential problems, but the duplicated effort and the potential for fragmentation are too great.

Recommendation 7

The Provincial Apprenticeship Board with support from the Apprenticeship Training Division should establish a new system of trade advisory committees that are representative of employers, employer organizations, labour organizations, and apprentices.

Recommendation 8

Priority should be given to establishing effective trade advisory committees for the automotive, auto body, and manufacturing (millwright and machinist) trades and action plans to respond to the serious concerns raised by industry representatives.

Recommendation 9

The role of the Provincial Apprenticeship Board and its consultative structures should be accommodated within the Skills Framework to establish a method for collecting and exchanging labour market information with its partners, particularly on a sector basis.

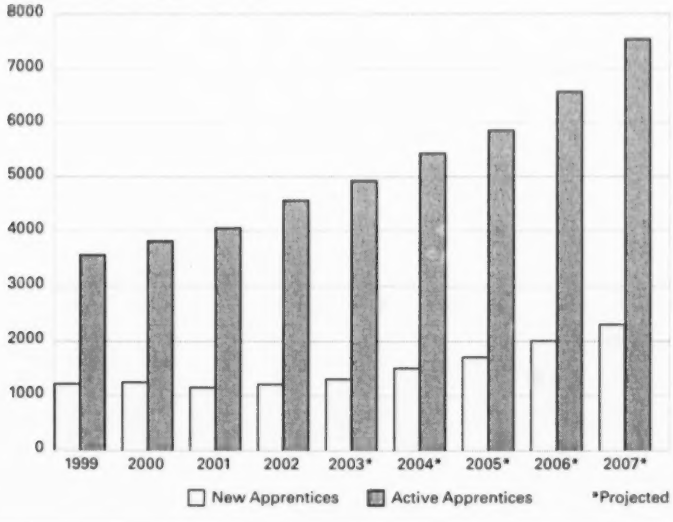
Availability and Suitability of Training

We heard from both employers and apprentices regarding concerns over the availability of training. The training system has become so strained that individuals could not proceed at a predetermined pace through their apprenticeship due to the limited training options. It was noted that the simple solution is not merely to add more courses as there are issues related to attendance and no-shows that must be addressed. If employers and apprentices, particularly in non-compulsory trades, feel that they cannot progress at a reasonable pace through the system then, as we heard, they have begun to turn to other options. The system must be able to provide training on a regular schedule allowing apprentices to move through their training as soon as they have achieved their work experience hours and as close to home as possible. Methods to improve information flow, ensure attendance, and provide a regular and full schedule of training are needed.

The challenges are significant. The need to expand the number of apprentices entering the system, successfully completing the program, and achieving certification within as short a time as possible is critical to responding to anticipated labour market conditions. It is anticipated that we will need to double the number of new apprentices registering with the system by 2007. To achieve the objective of qualified journeypersons in Recommendation 1, the completion rate and the average time to complete will both have to improve.

System capacity concerns were the most persistently reoccurring theme of the public meetings. It was a concern to employers and to apprentices. While registrations have increased in recent years, training budgets have not kept pace. Federal funding or contributions are non-existent.

Apprentice Registrations



The chart below provides comparative data from jurisdictions of similar size. Nova Scotia is well out of sync with respect to budget and, therefore, staff and training spaces. With only 38 percent capacity to train apprentices in the system, little wonder there are complaints.

We recognize that funds are in short supply across the provincial government. We have, therefore, recommended that a long-term strategy be developed that balances provincial and federal funding with user fees, allowing for the anticipated expansion of the system itself.

We had presented long-term goals as a guide—an average expenditure per active apprentice calculated as an average of three jurisdictions—Manitoba, Saskatchewan, and New Brunswick, as well as a staffing target.

Apprenticeship Operational Comparisons
2000–01 (actual)

	Manitoba	Saskatchewan	New Brunswick	Nova Scotia
Budget	$9,938,100	$8,829,000	$6,145,000	$3,856,000
Training	$6,466,000	$6,314,000	$3,400,000	$1,876,000
Operating	$3,472,100	$2,515,000	$2,745,000	$1,980,000
% Federal contribution towards Training costs	80	*70	67	0
Active Apprentices	4300	5306	3500	4070
% of Active Apprentices for which training is budgeted	60	54	55	38
Avg $ per Active Apprentice	3,320	2,690	2,500	1,715
# Apprentices per Field Staff Member	239	408	250	340

*estimated

Recommendation 10

Multi-year funding targets for the apprenticeship system should be established by multiplying the anticipated number of active apprentices by an average cost per apprentice of $ 2,800. These funding targets should be reflected in the federal-provincial labour market development agreement as well as the provincial budget process.

Recommendation 11

The Provincial Apprenticeship Board, in consultation with the Apprenticeship Training Division, should develop an overall strategy to balance the financial contributions and costs of the apprenticeship system among the partners—employer, apprentice, and government. The strategy should address financial assistance that may be available to either apprentice or employer.

Recommendation 12

The regulation regarding user fees for apprenticeship and certification processes, course registration, certifications, and renewals should be reviewed to ensure they reflect Treasury and Policy Board guidelines. A new schedule of fees should be prepared and reviewed every two years.

Understanding that apprenticeship training courses and blocks are theory based, many individuals discussed the need for practical training as part of apprenticeship courses and blocks. A number of arguments in support were presented. These included the need to round out the apprentice's experience, augment limitations in individual employer's operations, and provide exposure to equipment, procedures, or activities that may not be readily available. This position was reinforced in regions of the province where employers appear to be more likely to hire individuals as apprentices who have not completed a pre-employment program.

Developing programming that is flexible and responsive was noted as key to the future of apprenticeship. The opportunity of infrastructure investments by partnering with employers or others to host training and provide access to new equipment and processes were viewed as an affordable solution to respond to training needs.

Placing pre-apprentices in a real-work environment early in their programs was noted to be critical to long-term success. Too often employers found graduates dissatisfied with actual working conditions. These were unknown or misunderstood by the student or not experienced as part of a co-op work term. Concern was also expressed about the disconnection between the clean environment of the NSCC campuses and the real world of work for many tradespeople.

In recent years, the Apprenticeship Training Division and Board participated in national and Atlantic region programs to standardize occupational analyses and curriculum and improve processes for reciprocal recognition such as the Red Seal Program. These are important initiatives. Mobility of tradespeople is a key outcome for the individual and for the economy. Nova Scotia should continue to play an active role in these programs while looking for additional opportunities to cooperate on program delivery, particularly in trades training where small numbers of registrants make programming difficult. The regional approach to boilermaker training may serve as a model in this regard. Expansion of the system will create tensions and every alternative to accommodate this growth must be explored.

Recommendation 13

The Department of Education should continue to advance its efforts to provide flexible training options to apprentices. Consideration should be given to part-time, night time, and weekend delivery when possible. Opportunities to co-operate on program delivery and development with the other Atlantic Provinces should continue and be expanded.

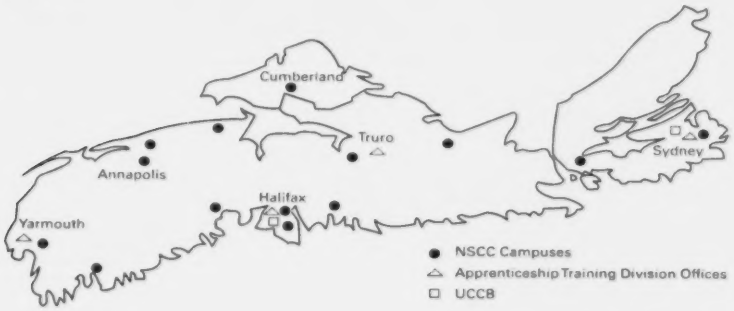
Recommendation 14

Accreditation of training delivery for both apprenticeship and pre-employment programs should be pursued and occupational and curriculum standards strictly enforced.

Recommendation 15

The Apprenticeship Training Division should increase field staff to a level where efficient and effective service to clients is achieved. A ratio of 250 apprentices per field staff member should be established as a goal.

Concerns with the availability of apprenticeship and pre-employment programs around the province were voiced at the public meetings. The long-term plan needs to address access to programs. Alternative delivery sites such as employer facilities need to be explored as well as aligning youth apprenticeship experiences with locally available pre-employment programs and, finally, with the local labour market needs for apprentices. This will be a complex and continuous process that will require ongoing stakeholder input, but it is necessary. Pre-apprentice registration, as suggested earlier, may assist in the planning process.



Apprenticeship Programs	Associated Pre-Employment Programs
Automotive Service Technician (AST)	NSCC/UCCB
AST - Service Station Mechanic	NSCC/UCCB
Bricklayer	
Carpenter	NSCC
Construction Electrician	NSCC
Cook	NSCC
Farm Equipment Mechanic	NSCC
Gas Fitter	NSCC
Heavy Duty Equipment Mechanic	NSCC
Industrial Instrument Mechanic	NSCC
Industrial Mechanic (Millwright)	NSCC/UCCB
Ironworker (Generalist)	
Machinist	NSCC/UCCB
Metal Fabricator (Fitter)	NSCC
Motor Vehicle Body Repairer (Metal and Paint)	NSCC/UCCB

Apprenticeship Programs	Associated Pre-Employment Programs
Oil Burner Mechanic	
Plumber	NSCC
Powerline Technician (Lineman)	NSCC
Refrigeration and Air Conditioning Mechanic	NSCC
Sheet Metal Worker	
Sprinkler System Installer	
Stationary Engineer	NSCC
Steamfitter/Pipefitter	NSCC
Truck and Transport Mechanic	NSCC/UCCB
Welder	NSCC/UCCB

Recommendation 16

The Apprenticeship Training Division, in consultation with the Provincial Apprenticeship Board, should ensure that plans are in place for the expansion and delivery of pre-employment training programs. The availability of programs should be aligned with the anticipated level of new apprentices and should consider the availability of programs throughout rural areas of the province.

Recommendation 17

The Provincial Apprenticeship Board, in consultation with the Apprenticeship Training Division, should embark on a campaign to educate existing and future employers about the Apprenticeship Program and associated responsibilities within the program. A program to recognize the contributions of employers and journeypersons to the apprenticeship system should be established.

Youth Apprenticeship

In 2000, the Provincial Apprenticeship Board surveyed high school students to determine their level of apprenticeship knowledge and the factors leading to their post-secondary decisions. It appears that current efforts haven't been very effective in creating apprenticeship awareness. The Youth Decision Survey yielded the following results:

- Most students (greater than 80 percent) believe their parents would like to see them go to university or community college after leaving high school. Very few (1.5 percent) thought their parents would like to see them become a tradesperson.
- Students find the advice of teachers and guidance counsellors and family more useful than any other information sources when deciding what to do when they leave school.

- Students who learned about apprenticeship were more likely to have received information from family and class discussions than from any other source.
- Students have some awareness of skilled trades opportunities and tend to have positive perceptions of skilled trades, but appear to have limited knowledge of apprenticeship and the relationship between apprenticeship and skilled trades.
- Once their education is complete, students (based on their perceptions) are more likely to work in the fields of entertainment, education, and personal, public, and business services than in the fields of agriculture, energy, forestry, manufacturing and processing, pharmaceuticals, telecommunications, and trades and construction.
- Students know much more about jobs in the entertainment field than jobs in trades and construction; and our high school students consider themselves strongest in the subjects English and communication and weakest in mechanical skill.

It was evident in discussions of youth and apprenticeship that Nova Scotia must do more to educate young Nova Scotians on trade opportunities and careers. The Apprenticeship Training Division, through its Skills Canada initiative and programs such as Techsploration, have been reaching out to youth. Further programs will be required.

Stakeholders reacted favourably to the concept of youth apprenticeship; however, many individuals were uncertain as to the potential form it would take. Results from the discussions indicated the need to explore other provincial models, design one specific to the needs of Nova Scotia, and implement a program in cooperation with industry. The Cape Breton-Victoria Regional School Board and Memorial Composite High School provided a very thoughtful response to discussion paper questions regarding youth apprenticeship. Consideration should be given to their offer to pilot a program.

Recommendation 18

The Apprenticeship Training Division, in consultation with the Provincial Apprenticeship Board, should investigate current youth apprenticeship programs offered in other jurisdictions for the purpose of designing and implementing a pilot program in Nova Scotia in 2003.

Recommendation 19

The Provincial Apprenticeship Board should continue and expand its program to promote apprenticeship to youth and to those who influence their career choices. The board should establish partnerships with industry organizations undertaking similar programs to enhance and leverage available resources. The Youth Decision Survey should be repeated periodically to provide a performance benchmark for these promotional activities.

Regulation

The *Apprenticeship and Trades Qualifications Act* establishes a legal framework for defining and regulating skills and occupational qualifications. The Act establishes standards for public safety within its certification provisions. Decision-making authority is also assigned along with roles and responsibilities of the Minister, the Director, the Apprenticeship Board, and others. The Act and regulations establish standards, working conditions, rates of pay, and scopes of work. These powers are extensive. The majority of the regulations are developed at an occupational level and content does vary. Apprenticeship regulations operate in conjunction with other government regulatory activities, primarily regulations under the jurisdiction of the Minister of Environment and Labour.

We heard a number of concerns expressed about the Act, the regulations, and their administration. We also heard complaints and frustration over "who was responsible" for certain regulatory decisions. In many cases, the answer was that a split jurisdiction existed although no lead agency appeared to be in charge of "coordinating outcomes or even consultation processes." While the content of some regulations was not a concern, the lack of training or information to support regulatory changes had created major difficulties. Many stakeholders emphasized the need for consist enforcement of existing regulations.

The Gas Fitter trade was a significant topic of discussion at six of the eight public sessions. Many of the participants indicated that several trades perform many of the same or similar tasks of a gas fitter. It was felt that the skills and knowledge of these tradespeople were ignored by those involved in the development of the Fuel Safety Regulations. Impending restrictions in these regulations, it was believed, would infringe on and impede the ability and profitability of Nova Scotia businesses. Other examples such as well pump installer were provided. Participants called for an open and clear dialogue among stakeholders. Occupation certifications were addressed in the Licenses, Permits, and Approvals Task Force Report. Reconsideration of this issue at a corporate government level is needed.

Sample of Provincial Certifications		
Compulsory Certified Occupation	**Legislative Authority**	**Responsible Department**
(selected from Licenses, Permits and Approvals Task Force Report, not a comprehensive listing)		
Automotive Service Technician	*Apprenticeship Act*	Education
Service Station Mechanic	*Apprenticeship Act*	Education
Bricklayer	*Apprenticeship Act*	Education
Construction Electrician	*Apprenticeship Act*	Education
Oil Burner Mechanic	*Apprenticeship Act*	Education
Plumber	*Apprenticeship Act*	Education
Air Conditioning Mechanic	*Apprenticeship Act*	Education
Truck and Transport Mechanic	*Apprenticeship Act*	Education
Septic Tank Installer	*Environment Act*	Environment & Labour
Pesticide Certificate	*Environment Act*	Environment & Labour
Well Pump Installation	*Environment Act*	Environment & Labour
Stationary Engineer	*Stationary Engineers & Crane Operators Act*	Environment & Labour
Crane Operator	*Stationary Engineers & Crane Operators Act*	Environment & Labour
Communications Cabling Specialist	*Electrical Inspection Act*	Environment & Labour
Blaster	*Occupational Health and Safety Act*	Environment & Labour
Projectionist & Apprentice		Gaming Control Commission
Embalmer and Apprentice Embalmer		Service NS and Municipal Relations

Recommendation 20

The Treasury and Policy Board should establish clear lines of authority to address the policy development process for "occupational certifications and regulations." A program to streamline the current regulatory regime should be initiated in full consultation with industry stakeholders and affected departments.

The designation and/or certification of occupations under the *Apprenticeship and Trades Qualifications Act* was identified as a key issue in the regulatory development process. The need to have compulsory certification where public and personal safety are strong considerations was raised for specific trades and, in several instances, compulsory certification was suggested for all 53 apprenticeship trades. Many stakeholders believe compulsory certification provides tradespeople with a sense of job security knowing that their co-workers had all achieved the same standard. This in itself should encourage, sustain, and increase the number of people entering the trades. A lack of consistency was noted in comparing the eight existing compulsory certified trades with many of the remaining trades. Most participants indicated that a consistent approach was necessary and that the consistency should exist across regulatory departments and agencies.

Recommendation 21

Within the context of recommendation 20, the Provincial Apprenticeship Board should review the policy framework for compulsory certification of occupations under the *Apprenticeship and Trades Qualifications Act*. The impact of compulsory certification on the employment prospects for individuals including inter-provincial mobility and on public safety should form the basis for this review. This review should address the responsibility of the Apprenticeship Training Division and/or other government regulatory agencies to enforce these regulations.

During the review, concern was expressed with respect to issuance of temporary permits. Stakeholders are concerned these permits could be used to circumvent the system, reducing the amount of work available to apprentices already in the system.

Recommendation 22

The Provincial Apprenticeship Board should consult with stakeholders on the policy of issuing temporary or 90-day work permits.

Legal counsel to the Apprenticeship Training Division has identified a number of wording changes that were summarized for the working group. These items focussed on increased administration efficiencies and flexibility of decision making and process. We heard from both apprentices and employers that responsiveness and flexibility were needed. We encourage the division to proceed with changes that will accomplish these ends.

Recommendation 23

The *Apprenticeship and Trades Qualifications Act* and regulations should be revised to achieve administrative efficiencies and greater flexibility.

Recommendation 24

The draft amendments to the *Apprenticeship and Trades Qualifications Act* arising from this report should be presented to the Provincial Apprenticeship Board for review before being submitted to the Minister and the legislative process.

We believe the review has been a constructive process—an opportunity to reflect and to build consensus. We believe periodic review is vital to the system.

Recommendation 25

The *Apprenticeship and Trades Qualifications Act* should be the subject of a regular stakeholder review every five years. A provision requiring such a review should be included in the legislation.

Appendix 1: Summary of Recommendations

Recommendation 1: Adopt a multi-year strategy

The Government of Nova Scotia should adopt a multi-year strategy to expand the apprenticeship system based on the need to qualify 1,400 tradespersons per year by 2007. This goal reflects the needs of existing and anticipated new employers as well as the value and potential of career opportunities for individuals in the skilled trades.

Recommendation 2: Plan for substantial growth

The Government of Nova Scotia, through the Skills Framework and in its negotiations with the federal government, should plan to accommodate substantial growth within the apprenticeship system.

Recommendation 3: Establish Performance Measures

The Provincial Apprenticeship Board should establish a five-year strategy and specific performance measures to achieve these apprenticeship targets and report annually to the Minister and to stakeholders.

Recommendation 4: Redefine and expand the Apprenticeship Program

The Apprenticeship Program must be redefined as the comprehensive system it is. The program must be expanded to include coordination and budget control over the delivery of the youth apprenticeship and pre-employment programs that ultimately lead into formal apprenticeship. The Apprenticeship Training Division, with direction from the Provincial Apprenticeship Board, should be assigned the authority to plan and manage these programs through legislation. The NSCC/UCCB systems should retain a central role in supporting program delivery.

Recommendation 5: Review the composition and mandate of the Provincial Apprenticeship Board

The composition and mandate of the Provincial Apprenticeship Board should be reviewed in light of the expanded role and responsibility of the Apprenticeship Training Division. The Provincial Apprenticeship Board should be given governance responsibilities with respect to the implementation of the strategic plan.

Recommendation 6: Appoint Board members from stakeholder nominees

The Minister of Education should make appointments to the Provincial Apprenticeship Board from nominees presented by the stakeholders to the system. The structure of the Board should continue to balance employer and employee representation while including apprentice, youth and educational institutional representatives. The Board should provide recommendations to the Minister as to the industry sector balance as well as geographic representation needs of the Board when new appointments are being contemplated.

Recommendation 7: Establish a new system of trade advisory committees

The Provincial Apprenticeship Board with support from the Apprenticeship Training Division should establish a new system of trade advisory committees that are representative of employers, employer organizations, labour organizations, and apprentices.

Recommendation 8: Establish priorities for trade advisory committees

Priority should be given to establishing effective trade advisory committees for the automotive, auto body, and manufacturing (millwright and machinist) trades and action plans to respond to the serious concerns raised by industry representatives.

Recommendation 9: Collect and exchange labour market information

The role of the Provincial Apprenticeship Board and its consultative structures should be accommodated within the Skills Framework to establish a method for collecting and exchanging labour market information with its partners, particularly on a sector basis.

Recommendation 10: Establish multi-year funding targets

Multi-year funding targets for the apprenticeship system should be established by multiplying the anticipated number of active apprentices by an average cost per apprentice of $ 2,800. These funding targets should be reflected in the federal provincial labour market development agreement as well as the provincial budget process.

Recommendation 11: Balance the cost of apprenticeship between 3 parties

The Provincial Apprenticeship Board, in consultation with the Apprenticeship Training Division, should develop an overall strategy to balance the financial contributions and costs of the apprenticeship system among the partners—employer, apprentice, and government. The strategy should address financial assistance that may be available to either apprentice or employer.

Recommendation 12: Review user fees

The regulation regarding user fees for apprenticeship and certification processes, course registration, certifications, and renewals should be reviewed to ensure they reflect Treasury and Policy Board guidelines. A new schedule of fees should be prepared and reviewed every two years.

Recommendation 13: Provide flexible training options

The Department of Education should continue to advance its efforts to provide flexible in training options to apprentices. Consideration should be given to part-time, nighttime, and weekend delivery when possible. Opportunities to cooperate on program delivery and development with the other Atlantic Provinces should continue and be expanded.

Recommendation 14: Accredit training delivery

Accreditation of training delivery for both apprenticeship and pre-employment programs should be pursued and occupational and curriculum standards strictly enforced.

Recommendation 15: Increase field staff

The Apprenticeship Training Division should increase field staff to a level where efficient and effective service to clients is achieved. A ratio of 250 apprentices per field staff member should be established as a goal.

Recommendation 16: Expand pre-employment training programs

The Apprenticeship Training Division, in consultation with the Provincial Apprenticeship Board, should ensure that plans are in place for the expansion and delivery of pre-employment training programs. The availability of programs should be aligned with the anticipated level of new apprentices and should consider the availability of programs throughout rural areas of the province.

Recommendation 17: Educate employers

The Provincial Apprenticeship Board, in consultation with the Apprenticeship Training Division, should embark on a campaign to educate existing and future employers about the Apprenticeship Program and associated responsibilities within the program. A program to recognize the contribution of employers and journeypersons to the apprenticeship system should be established.

Recommendation 18: Create a pilot Youth Apprenticeship Program

The Apprenticeship Training Division, in consultation with the Provincial Apprenticeship Board, should investigate current youth apprenticeship programs offered in other jurisdictions for the purpose of designing and implementing a pilot program in Nova Scotia in 2003.

Recommendation 19: Promote apprenticeship to youth

The Provincial Apprenticeship Board should continue and expand its program to promote apprenticeship to youth and to those who influence their career choices. The Board should establish partnerships with industry organizations undertaking similar programs to enhance and leverage available resources. The Youth Decision Survey should be repeated periodically to provide a performance benchmark for these promotional activities.

Recommendation 20: Streamline policy development process

The Treasury and Policy Board should establish clear lines of authority to address the policy development process for "occupational certifications and regulations." A program to streamline the current regulatory regime should be initiated in full consultation with industry stakeholders and affected departments.

Recommendation 21: Review the impact of compulsory certification

Within the context of recommendation 20, the Provincial Apprenticeship Board should review the policy framework for compulsory certification of occupations under the *Apprenticeship and Trades Qualifications Act*. The impact of compulsory certification on the employment prospects for individuals including inter-provincial mobility and on public safety should form the basis for this review. This review should address the responsibility of the Apprenticeship Training Division and/or other government regulatory agencies to enforce these regulations.

Recommendation 22: Consult stakeholders on temporary work permits

The Provincial Apprenticeship Board should consult with stakeholders on the policy of issuing temporary or 90 day work permits.

Recommendation 23: Revise legislation

The *Apprenticeship and Trades Qualifications Act* and regulations should be revised to achieve administrative efficiencies and greater flexibility.

Recommendation 24: Present draft amend to Provincial Apprenticeship Board for review

The draft amendments to the *Apprenticeship and Trades Qualifications Act* arising from this report should be presented to the Provincial Apprenticeship Board for review before being submitted to the Minister and the legislative process.

Recommendation 25: Require regular review of Act

The *Apprenticeship and Trades Qualifications Act* should be the subject of a regular stakeholder review every five years. A provision requiring such a review should be included in the legislation.

Appendix 2: Summary of Responses

Nine discussion issues identified through a review of Nova Scotia Apprenticeship research and reaffirmed through a committee of 19 industry representatives were presented in the *Apprenticeship in Nova Scotia, A Discussion Paper.* They were not the only issues and the discussion paper did not purport to explore every facet of each identified issue. For each of the nine issues below a summary of written submissions is provided.

1. Vision for Apprenticeship

We heard from many respondents/submissions that the current vision was acceptable. Specific responses described a system that

- is affordable and of high quality
- offers excellent programs in a timely manner
- works closely with public school education
- leads to an intelligent, balanced workforce
- provides the best training experience possible
- encourages co-operation and participation
- is clear in its goals and objectives; and
- is open and attractive to young Nova Scotians

Canadian Manufacturers and Exporters (CME) is in agreement with the currently expressed vision for apprenticeship training, namely "a dynamic training and certification system that enhances Nova Scotia's economic development opportunities through quality Apprenticeship training and certification opportunities." We believe the system must be affordable, but of high quality, to apprentices, employers and other stakeholders.

Dick Smyth, CME Nova Scotia Division

2. Industry Involvement in Apprenticeship Training

We heard that industry must take on a greater role in the Apprenticeship System. Specific responses indicated that industry should/must

- promote trade careers by various means
- assist in costs related to the mobility of apprentices
- provide practical experience and access to training
- work closely with government and training providers
- participate actively in a campaign to improve the public's perceptions of trade careers
- accept responsibility for providing experience and training in all aspects of the trade
- encourage industry professionals to be involved in training component of the program
- increase its involvement and accountability in monitoring apprenticeship programs
- be recognised for its contribution to the apprenticeship program

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There needs to be more industry involvement and accountability in monitoring of the program. Increased support from the Apprenticeship system to employers and ownership throughout the entire process is required. Industry also needs assurances that there is quality instruction at the training institutions and input into the appropriate levels of credentials required. Industry should be fully involved in the hiring/selection process of instructors. The relationship between the instructors and Industry is key to the success of most programs and where instructors lack credibility with industry, so too does the program they teach.

Susan Tiley-Russell and Darlene Grant Fiander, Tourism Industry Association of Nova Scotia (TIANS) Human Resource Sector Council

3. Role, Function, and Make-Up of the Provincial Apprenticeship Board

We heard many opinions and suggestions on the role, function and make-up of the Provincial Apprenticeship Board. Specifically we heard that the board should

- be proactive in forming linkages and discussing issues with stakeholders
- partner with industry in marketing the apprenticeship program
- continue to operate in an advisory capacity to the Minister of Education on matters concerning policy, direction and promotion of the program
- increase visibility within industry
- engage in relevant and timely responses to industry's recommendations on program changes/improvements
- reactivate Trade Advisory Committees for the purpose of curriculum review and monitoring numbers of trade persons in the labour market

We also heard that with respect to make-up and function, the board should

- include as members leaders from industry, business and education
- have an apprentice serve on the board
- have a manufacturing representative serve on the board
- have all members appointed through an industry sector process similar to the Saskatchewan model
- meet bi-monthly

The Provincial Apprenticeship Board is an excellent avenue for addressing the concerns of the Apprenticeship Training System. They have contributed to the awareness and promotion of Apprenticeship training very positively. The Provincial Apprenticeship Board should work closer with Department of Education with regards to trade awareness in the public school system. Maybe include a representative from the Department of Education on the PAB, such as the Director of the College Prep program.

Archie MacEachern, Cape Breton Victoria Regional School Board

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The Board needs the power to effect change in the program, without ministerial approval. Timely response to program needs will enhance the training experience for both the apprentice and the employer, with a positive correlation to program confidence.

Susan Tiley-Russell and Darlene Grant Fiander, TIANS Human Resource Sector Council

4. Role and Function of the Apprenticeship Training Division

We heard that the role and function of the Apprenticeship Training Division could better serve industry by

- anticipating the needs of industry
- focussing on legislating, regulating, and monitoring the apprenticeship system
- allowing apprenticeship to be industry driven
- developing and implementing an accreditation policy for training providers and employers
- developing stronger industry partnerships
- fostering closer contact with apprentices through workplace visits

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The apprenticeship training division needs to have closer contact with industry.

Don Hiltz, Black and MacDonald Limited

5. Regulatory Framework

With respect to current regulations, we heard that we should

- conduct modifications to regulations with full co-operation of stakeholders
- have a regulatory framework that is responsive and flexible to the needs of industry
- review criteria for compulsory and non-compulsory trades
- simplify regulations
- actively seek industry's input in the designation of new trades
- reduce duplication among regulatory bodies
- avoid fractionation of existing trades
- be more strict with enforcement
- ensure regulatory framework is inclusive for all Nova Scotians

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There must be more accountability of compliance with regulations. This will require more enforcement staff and stronger penalties that will create a deterrent to non-compliant companies. This will ensure the quality of on-the-job experience as well as the very safety of the employees. The administration process for enforcement needs to be streamlined to provide a "real-time" response instead of the current "time-delay" and too long after the fact situation we now have.

Tim Swinamer, International Brotherhood of Electrical Workers Local 625

6. Role of Youth in Apprenticeship

We heard conclusively that Nova Scotia needs a youth apprenticeship program. We also heard that the program should/must

- be developed through adequate research and planning
- be promoted vigorously in the secondary school system and even at the junior high level
- allow professional trades persons to make presentations to youth apprenticeship program participants
- be accessible to all students
- have adequate funding
- remunerate program participants
- provide quality trade experience
- be supported by trained and knowledgeable guidance/career counsellors
- award certificates of completion and credits towards post-secondary education

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If Nova Scotia is to compete in the increasingly tight international market for skilled tradespeople, we must "grow" our own people. To do this, we must demonstrate to young people the value of these careers. We must provide learning experiences in the highly sophisticated field of emerging technologies. As Nova Scotian manufacturers upgrade their facilities, purchasing the most advanced technology available in the world, they require equally skilled tradespeople to maintain the new equipment.

Robin Anthony, Bowater Mersey Paper Company Limited

7. Funding Apprenticeship

We heard overwhelmingly that Nova Scotia's current funding of apprenticeship is inadequate in meeting current and future program requirements. Specifically, we heard that

- all participants and partners in the program have a responsibility to pay
- not enough funding is available for training delivery, especially in areas outside of Metro and Sydney
- employers need to invest more through enhanced wages
- the Province must make apprenticeship a priority and fund it to the levels necessary to provide timely services to apprentices and industry

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As an apprentice in this province there are enough bills and TAXES and FEES that I have to pay. It's enough to train, work, and provide for my family. The industry and government should be the major contributors.

David Joseph Campbell

Funding should reflect wages paid to apprentices while employed in the trades. With the current surplus in federal EI funds, money could be allotted to pay apprentices while in school, and equivalent wages to wages earned while employed. This would promote attendance rather than staying at work and avoiding training.

Michael Campbell, Cape Breton Carpenters' Education Company Limited

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Present funding is not adequate as indicated in the workload of staff: i.e. 450 apprentices per unit. Government should bear responsibility for adequate funding in order to develop a first class system.

Jim Wilkie, A.B. Mechanical Limited

While working, apprentices should receive compensation, which recognizes their developing skills and education. A long-term formal employment contract would be beneficial to both the employer and the employee. The employee, through wages and compensation, receives recognition for the education level, and the employer, through the contract, a means to assure continued long-term employment beyond the apprenticeship period.

Susan Tiley-Russell and Darlene Grant Fiander,
TIANS Human Resource Sector Council

8. Training Options

We heard many opinions and suggestions of ways apprenticeship training could respond to the needs of Nova Scotians. Specifically, we heard that consideration must be give to

- providing training in industrial areas rather than requiring apprentices to travel outside their area of employment
- removing the mandatory retirement age of journey persons
- providing a means for cross-training where industry demands multiple skill sets
- having better information on demand and supply of trade persons
- developing a system for timely industry input on curriculum and standards development
- exploring alternate delivery of apprenticeship training
- sharing "best practices" information among employers
- focussing on efforts to make apprenticeship available to all Nova Scotians

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Most of the learning should still take place while earning and learning on-the-job. A greater emphasis should be put on the on-line, virtual campus learning to accommodate the individuals' schedules. Fees should be minimal and less than the in-school portion.

Russell Hazelden

We have made it almost impossible, in Nova Scotia, for a person from the street to upgrade to a trade, since the education department seldom runs a Block 1 program. They cite the fact of having too few people to run the course.

Harry Rhyno, Rhyno's Heating, Cooling and Ventilation

There are not enough scheduled classes available to meet the current demand of apprentices in the system today. As enrollment continues to increase this issue will become more serious in those areas where a shortage of tradespeople has been identified.

Tim Swinamer, International Brotherhood of Electrical Workers Local 625)

9. Roles of Employers and Apprentices in Apprenticeship Training

To encourage better participation by employers and apprentices we heard that the system should/could

- promote the advantages of hiring trades people and being a certified trades person
- offer business courses to apprentices and journey persons
- hold training at employer locations
- be flexible in offering trades training year round
- ensure course work adequately prepares apprentices for certification exams
- provide better information on the relationship between pre-employment and apprenticeship programs
- re-visit the term of apprenticeship for all trades
- encourage greater industry participation
- provide incentives to apprentices attending training–Employment Insurance benefits and allowances
- recognise the accomplishments of apprentices and employers
- fund apprenticeship to allow for an increase in Apprenticeship Training Division staffing and program delivery
- explore supplementary wage program for employers
- develop a scholarship and bursary program for apprentices

My only comments would be to be very aggressive in promoting trades and apprenticeship programs. There are many students and semi-skilled people who aren't aware of the programs and opportunities. Some think if they don't go to university or go into IT programs they are doomed. I think a regional and provincial skills assessment needs to be done.

Harold G. Irving, Hants Regional Development Authority

Appendix 3: List of Public Session Attendees and Act Review Submissions

Public Session Attendees

Name	Area of Interest/Organization
Ayer, Perry	Electrical
Baxter, Graham	MERIT Contractors
Benjamin, Tim	Machinist
Black, Joe	Apprenticeship Training Division
Burke, Joe	Sable Propane
Cameron, Bill	Equipment Service and Maintenance
Campbell, Dannie	Gas
Campbell, Michael	Carpentry
Carr, Bernie	Sheet Metal
Chute, Gerry	Automotive
Clark, Susan	Department of Education
Concovie, Keith	Media - Journalist
Corlett, John	Mechanical
D'Eon, Philip	Electrical
DeCoste, Raphael	Nova Scotia Community College
Deveau, Larry	Department of National Defense
Dickson, Belinda	Industrial Instrument Mechanic
Dollimont, Wally	Heavy Duty Truck and Transport
Doucette, Noel R.	Provincial Apprenticeship Board
Drish, John	Nova Scotia Community College
Eddy, James	Plumbing
George, Eugene	Electrical
Gerrior, Kevin	Nova Scotia Community College
Gillis, Walter	Heavy Duty Truck and Transport
Graves, Peter	Germain Mechanical and Electrical
Greer, Peter	Carpentry
Griffin, Robert	Media - CKEC Radio
Griffiths, Tom	Electrical
Hendsbee, Tanya	Nova Scotia Community College
Hickey, Peter	Oil Heating
Higgins, Nathan	Machinist
Hostal, Gilles	Hospitality

Name	Area of Interest/Organization
Hubley, Beverly	Electrical
Hutt, Jason	Plumbing
Ingraham, Winston	University College of Cape Breton
Johnson, Earl	Locksmith
Joudrey, Phillip	Hospitality
Keddy, Cecil	Electrical
Keeling, Steve	Heating Trades
Kelly Garnett, Tina	Skills Canada Nova Scotia
Lewis, Bert	Nova Scotia Community College
Lynas, Margaret	Nova Scotia Construction Sector Council
Lynch, Larry	Industrial Mechanic, Machinist
MacDonald, Kevin J.	Steamfitter / Pipefitter
MacDonald, Quentin	Welding
MacEachern, Alex	Nova Scotia Community College
MacGregor, Glen	Machinist
MacIsaac, John	Gas
MacLean, Danny	Oil Heating
MacLean, George	Nova Scotia Community College
MacLean, Lloyd	Plumbing and Sheet Metal
MacLean, Robert	Machinist
MacLellan, Robert	Stationary Engineer
MacNeil, Don	Machinist
Maddisan, Barry	Oil Burner Mechanic
Marchand, Doug	Plumbing
Marple, Neil	Industrial Instrument Mechanic
Martell, Fred	Memorial High School
Mason, Warren	Kimberly Clarke Nova Scotia
McKenzie, Lawrence	Carpentry
McKnight, Kelly	Department of Education
McLellan, Bill	MERIT Contractors Association
Misken, Kevin	Nova Scotia Community College
Mitchell, Robert	Hospitality
Morrison, Marilyn	Provincial Apprenticeship Board
Morton, Ted	Carpentry
Munroe, Perry	Automotive
Munroe, Tori	Industrial Mechanic Millwright

Name	Area of Interest/Organization
Murphy, Cliff	Steamfitter / Pipefitter
Murphy, George	Automotive
Murphy, Kevin	Automotive
Murphy, Tim	Industrial Instrument Mechanic
O'Connell, Rylla	Department of National Defense
O'Handley, James	Nova Scotia Community College
Pace, Ed	Provincial Apprenticeship Board
Parsons, Leonard	Plumbing
Parsons, Roland	Plumbing
Paul, Greg	Steamfitter / Pipefitter
Porter, Ron	Machinist - Industrial Mechanic
Reid, Dean	Mechanical Trades
Reynolds, Ken	Industrial Instrument Mechanic
Rhodenizer, Doyle	Industrial Mechanic Millwright
Rhyno, Harry	Rhyno's Heating, Cooling & Ventilation
Rose, Tony	Nova Scotia Community College
Rudderham, Joe	Provincial Apprenticeship Board
Sampson, Darrell	Electrical
Sampson, Robert	Nova Scotia Community College
Saulnier, Charles	Construction
Sekerok, Stephen	Carpentry
Slaunwhite, Brian	Automotive
Stevens, Brian	Sheet Metal
Stewart, Blair	Nova Scotia Community College
Swetnam, Peter	Oil Heating
Swinamer, Tim	Electrical
Thomson, David	Provincial Apprenticeship Board
Umlah, Heather	Apprenticeship Training Division
Vaninetti, Noel	Nova Scotia Community College
Vaslet, Stephen	Provincial Apprenticeship Board
Verge, Wilma	FMF Cape Scott
Warnell, Terry	Plumbing
Warren, Reid	Nova Scotia Community College
Wilkie, Jim	A.B. Mechanical
Wilson, Matthew	Machinist
Zwicker, Don	Provincial Apprenticeship Board

Act Review Submissions Received

Name	Area of Interest/Organization	Submission
Norman Paupin	Industrial Mechanic Millwright / Industrial Electrician	Internet
James P. Cole	General Public	Internet
Joseph Matheson	General Public	Internet
David Joseph Campbell	General Public	Internet
Lloyd MacKay	General Public	Internet
Anthony Murray	General Public	Internet
Norma Cochrane	General Public	Internet
Eilen Foley	General Public	Internet
Joseph Sabean	General Public	Internet
Harold G. Irving	Hants Regional Development Authority	Internet
Scott MacDonald	General Public	Internet
Don Hiltz	Black & McDonald Ltd.	Internet
George Murphy	Automotive	Internet
Russell Hazelden	Plumber	Internet
Lloyd MacLean	WM McKay Heating - Plumber, Sheet Metal	Written
Michael Campbell	Carpenter	Written
Bob Bona	Scotian Homes	Written
Larry Deveau	Department of National Defense	Written
Wendell Mahoney	J.R. Mahoney Contracting Ltd.	Written
Robert R. Blakely	Building & Construction Trades Department, Canadian Office	Written
Dick Smyth	Canadian Manufacturers & Exporters, Nova Scotia Division	Written
Tanya Milosevich	Bowater	Written
Russell Tilley	Tourism Industry Association of Nova Scotia Human Resource Sector Council (TIANS)	Written
Susan Tiley-Russell and Darlene Grant Fiander	Tourism Industry Association of Nova Scotia Human Resource Sector Council (TIANS)	Written
Archie MacEachern	Cape Breton/Victoria Regional School Board	Written

Name	Area of Interest/Organization	Submission
John R. Godley	Teacher	Written
Harry Rhyno	Rhyno's Heating, Cooling & Ventilation	Written
John Drish	Electrical	Written
Ed Pace	Plumber & Steamfitter	Written
Bernie Carr	Sheet Metal - Union	Written
Tim Swinamer	Electrical, IBEW	Written
Jim Wilkie	A. B. Mechanical	Written
Ron Porter	Machinist/Industrial Mechanic	Written
Cliff Murphy	Cape Breton Building Trades	Written
Tim Murphy	Industrial Instrument Mechanic	Written

Appendix 4: Act Review Working Group Committee

Name	Company Name
Baxter, Graham*	Merit Contractors Association of Nova Scotia
Bellefontaine, Stewart	Bell Electric
Black, Joe**	Apprenticeship Training Division, Department of Education
Butler, Rick**	Department of Education
Carroll, Thomas	Honeywell Ltd.
Conrad, Graham	Automotive Sector Council
Cruickshanks, Heather	Merit Contractors Association of Nova Scotia
Forsey, Carol	CKF Inc.
Gallant, Marc	Sayers & Associates
Gates, Lindsay*	Collision Repair Association of Nova Scotia
Gerrior, Kevin**	Nova Scotia Community College
Greer, Peter	Provincial Apprenticeship Board
Henley, James	Mainland Nova Scotia Building Trades Council
Kenny, Mary	Atlantic Home Building and Renovation Sector Council
Lynas, Margaret	Nova Scotia Construction Sector Council
MacCulloch, Carol	Construction Association of Nova Scotia
MacEachern, Alex	Carpenter's Union
Madden, Malcolm	Automotive Trades Association of NS
Murphy, Cliff	Cape Breton Island Building & Construction Trades Council
Rudderham, Joe**	Provincial Apprenticeship Board, Department of Education
Slaunwhite, Brian	Collision Repair Association of Nova Scotia
Stevens, Brian	Sheet Metal Worker's International Association - Local 409
Vannieuwenhuizen, Rene	Tourism Industry Association of Nova Scotia
Wilkie, Jim	A. B. Mechanical Ltd.
Wilson, John	International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers - Local 752

* Alternate member
** Resource person

Appendix 5: Designated Trades in Nova Scotia

Symbols:

- • Red Seal Occupation
- □ Compulsory Certified Trade
- * Apprenticeship training is currently not offered in these trades in Nova Scotia

Note: One year of apprenticeship equals approximately 2000 hours

Trade	Term (years)	Description
Alarm and Security Technician •	3	Installs/repairs intrusion alarm, closed circuit video and access control systems.
Appliance Service Technician* •	3	Repairs and services household appliances.
Automotive Painter • •	2	Prepares and paints motor vehicles
Automotive Service Technician • □	4	Services and repairs the brakes, suspension, engine, and fuel systems of cars and light trucks
Automotive Service Technician - Service Station Mechanic □	2	Performs tune-ups, safety inspections, services and repairs the brakes, clutch, and tires of cars and light trucks.
Baker • •	3	Makes breads, pastries, cookies and cakes.
Boilermaker •	3	Builds, tests, and repairs air-tight and liquid-tight containers such as boilers and storage tanks.
Bricklayer • □	4	Builds and repairs walls, floors, fireplaces, walkways with bricks, blocks and stones.
Cabinet Maker • •	4	Builds custom or production-type wooden (or wood substitute) fixtures or furniture.
Carpenter •	4	Works with wood or wood substitutes in the construction of buildings.
Concrete Finisher • •	3	Places, finishes, cuts and repairs concrete.
Construction Electrician • □	4	Installs, alters, repairs, and maintains electrical systems in buildings and residences.
Cook •	3	Prepares food and meals in hotels, restaurants and institutions.
Electric Motor System Technician • •	4	Repairs and rebuilds electric motors, generators, transformers, controls and equipment.
Electronics Technician (Consumer Products) • •	4	Services and repairs radios, televisions, and VCRs.
Farm Equipment Mechanic •	4	Repairs and services machines typically used in farming industry.
Floor Covering Installer • •	2.5	Installs many types of resilient or carpet floor covering.

Trade	Term (years)	Description
Gas Fitter	2	Installs piping, appliances, equipment, and controls for the use of natural gas or propane as fuel.
Glazier * *	4	Prepares, installs, and replaces glass.
Hairstylist * *	2	Cuts, trims, waves and colours hair, massages face and scalp, trims beards and mustaches.
Heavy Duty Equipment Technician *	4	Repairs and maintains heavy duty equipment such as bulldozers, cranes and graders.
Industrial Electrician *	4	Installs, repairs, and maintains electrical wiring and electrical equipment for industrial uses.
Industrial Instrument Mechanic * *	4	Repairs, maintains and installs industrial measuring and controlling equipment.
Industrial Mechanic (Millwright) *	4	Installs and maintains machinery and equipment in factories and production plants.
Insulator (Heat and Frost) * * industrial structures, removes asbestos.	4	Installs insulating materials in commercial and
Ironworker (Generalist) *	3	Builds, erects, constructs and joins structural steel used in buildings, bridges and towers.
Lather (Interior Systems Mechanic) * *	3	Installs ceiling, drywall partitions, sound-proofing, and vapour barriers in buildings.
Locksmith *	4	Repairs, installs and adjusts locks, and maintains safes and vaults.
Machinist *	4	Manufactures and repairs industrial components and mechanical devices by using a variety of metal cutting and shaping machinery.
Marine Fitter *	4	Makes and repairs structural metal parts for ships, cuts and shapes metal for ship building.
Metal Fabricator (Fitter) *	4	Makes and repairs metal parts used in the construction of bridges, buildings and boilers.
Mine Electrician *	2.5	Installs, repairs and maintains electrical equipment and systems used in mining.
Mine Mechanic *	2.5	Repairs, maintains and assembles equipment and machinery used in mining.
Mobile Crane Operator * *	3	Uses mobile cranes to lift, move, and place heavy objects, repairs, maintains and moves cranes.
Motorcycle Mechanic * *	4	Assembles, services and repairs motorcycles, motor scooters, and accessories.
Motor Vehicle Body Repairer (Metal & Paint) *	4	Repairs, restores and replaces damaged body parts such as glass, trim, steering and suspension.
Oil Burner Mechanic * ¤	3	Installs, repairs and services oil burning and oil combination burning equipment and appliances.

Trade	Term (years)	Description
Painter and Decorator • *	3	Applies paint, varnish, stain, wall paper, and wall coverings to interior and exterior surfaces.
Partsperson • *	3	Stores and dispenses automotive, heavy duty, or farm machinery parts.
Plumber • ▫	4	Installs and repairs piping and other equipment used to move, store or dispose of water, gas and sewage.
Power Engineer	2-4	Maintains equipment, boilers and generators that provide heat, ventilation and powers for buildings.
Powerline Technician •	4	Builds and maintains overhead and underground electrical systems, powerlines, poles and street lights.
Recreation Vehicle Service Technician • *	3	Installs, repairs and services Class A, B & C motorhomes, truck campers, holiday, fifth wheel, park mobile, and tent trailers.
Refrigeration & Air Conditioning Mechanic • ▫	4	Installs and services refrigerating and air conditioning systems.
Restoration Stone Mason •	4	Constructs and repairs structures using stone.
Roofer • *	3	Installs and repairs single or multi-ply roofing systems, shingles and pre-formed rigid sheeting.
Sheet Metal Worker •	4	Designs, makes, installs and repairs sheet metal products and parts.
Sprinkler System Installer •	4	Installs and maintains permanent fire extinguishing systems.
Steamfitter - Pipefitter •	4	Installs piping, equipment and controls for hot water, steam, process and chemical piping.
Tool and Die Maker • *	4	Makes, repairs or modifies prototype, or special tools, dies and fixtures.
Truck-Trailer Repairer • *	4	Repairs and services the braking, electrical hydraulic system and heating/cooling units of truck-trailers.
Truck and Transport Mechanic • ▫	4	Repairs and services the various systems and engine components of buses and transport vehicles.
Welder •	3	Joins, cuts or shapes metal using electric arc, oxyacetylene flame or other processes.